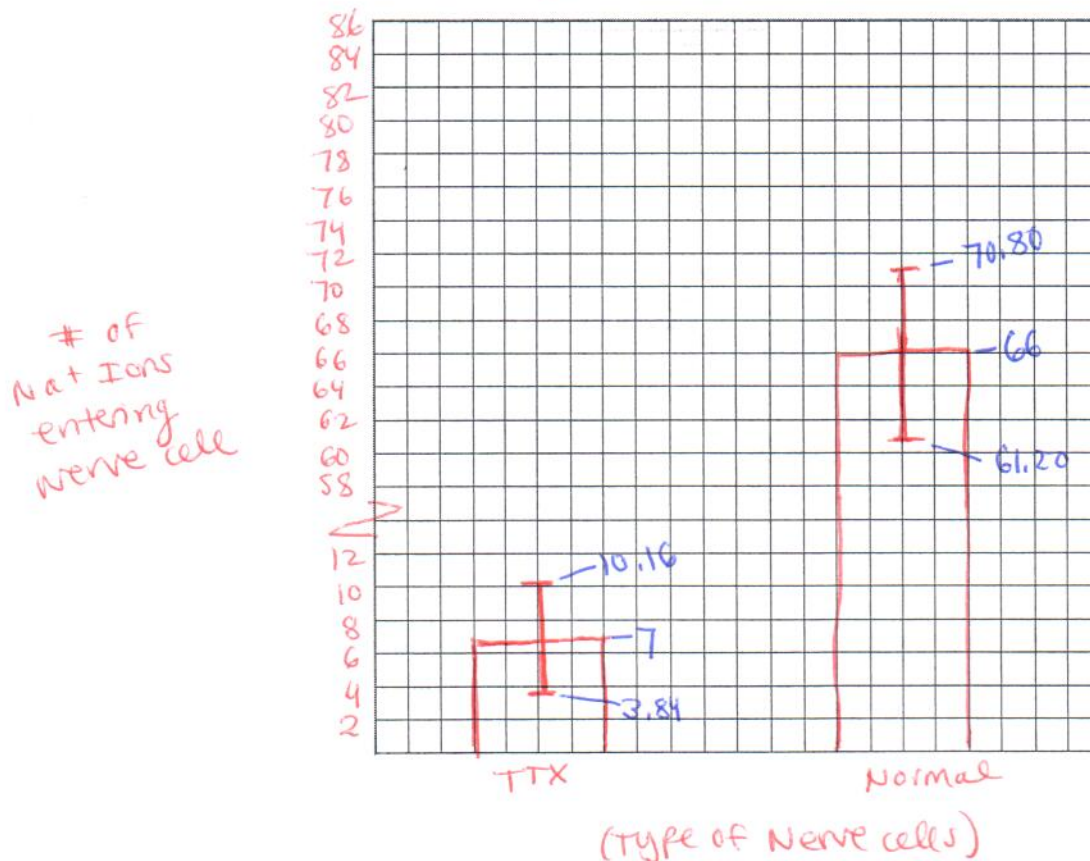


## mean # of $\text{Na}^+$ Ions entering TTX vs. Normal nerve cells



(you can have a break in the y-axis scale)

Is there overlap in the error bars for the two data sets? What does this mean?

No, there may be a statistically significant difference between the means (more testing is needed to confirm)

5. Next, we will use a Chi square test to determine if we should reject or FAIL TO REJECT our null hypothesis. Note: In the past, we have used the phrase "accept the null hypothesis." Statistically, this is incorrect, as we will never have enough data to fully prove / confirm our null hypothesis. Therefore, we will use the phrase "fail to reject the null hypothesis" in place of "accept the null hypothesis."

Use the steps given below to complete your Chi square test...

How do I perform a Chi square test?

### A. State the null hypothesis

- This is a negative statement, basically saying that there is no statistically significant difference between the observed and the expected results or between two sets of data.

Please rewrite your null hypothesis from page 1 in the space below.

There is no statistically significant difference between the # of  $\text{Na}^+$  entering the TTX nerve cells vs. Normal nerve cells